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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/542,373	07/14/2005	Tomoo Mizumura	Q88943	7793
23373 7590 12/17/2008 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037				
EXAMINER				
MESH, GENNADIY				
ART UNIT		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/542,373

Applicant(s)

MIZUMURA ET AL.

Examiner

GENNADIY MESH

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Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 3, 4, 13-15 and 18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 5-12, 17 and 19-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Applicant's Amendment filed on December 1, 2008 is acknowledged. Claims 1-2, 5 – 12, 16-17 and 19-20 are active. Claims 3-4, 13 - 15 and 18 are withdrawn. Rejection is maintained as it was set in previous Office action mailed on August 1, 2008.

Terminal Disclaimer

The terminal disclaimer filed on December 1, 2008 disclaiming the terminal portion of any patent granted on this application has been reviewed and is accepted. The terminal disclaimer has been recorded. Therefore, rejection over U.S. Patent No.7,371,701 has been overcome.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

1. Claims 1-2, 5 – 12, 16-17 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujita et al.(US 4,965,919) in view of Yamamoto (US 6,593,447) and in further view of Kowallik et al.(4,254,018).
- 1.1. Regarding Claim 1 Fujita "919" discloses polyester commingled yarn, comprising at least two types of filaments with different boiling water shrinkage ratios value (see abstract and lines 35-52,column7).

Fujita does not disclose specific method for polymerization of the polyester nor specific catalyst claimed by Applicant in Claim 1.

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However, Yamamoto teach, that polyester fiber(see lines 16-22,column 1) can be obtain from polyester produced by polycondensation process, wherein catalyst comprising reaction product of :

i) titanium compound - see formula (I) of abstract - this compound is substantially same as compound (I) of amended Claim 1

ii) aromatic polyfunctional carboxylic acid, preferably trimellitic acid – see formula (II) of abstract and column 6,lines 14-22 – this component same as component (II) of amended Claim 1

iii) phosphorus compound - see Formula (III) of abstract- this component same as component (IV) of amended Claim 1.

iiii) ratio between Titanium and Phosphorus varies from 1 to 4 (see column 5,lines 29-39) - therefore formula (i) of Claim 1 is satisfied. Same related to formula (ii) of Claim 1: amount of Titanium provided by Yamamoto - see Example 9 and column 16 - is 20 millimoles, than amount of Phosphorous can be 80 millimoles (based on 1 to 4 ratio) , than sum of $20 + 80 = 100$ satisfied formula (ii).

Yamamoto further teach that this catalytic system allowed to obtain **polyester with good color tone and excellent melt stability** compare for example with polyester obtained by antimony comprising catalyst (see lines 46-61,column 1 and 50 – 57,column 2).

Therefore, it would have been obvious for ordinary skill in the art at the time of the invention to use polyester, obtain by process catalyzed by titanium

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compound as it taught by Yamamoto, for production of polyester commingled yarn disclosed by Fujita.

Note, that Yamamoto is silent regarding use of alternative phosphorus compound (see Formula (III)) claimed by applicant in amended Claim 1.

However, use of this specific phosphorus compound (Formula (III) in amended Claim 1) for polyester polymerization and yarn production is well known in the art.

Kowallik teach(see abstract) that phosphonate compound of chemical Formula (III) can be used as heat stabilizing agent during polyester polymerization process and capable not only suppress discoloration, but also prevent **formation of coarse precipitates that can clog spinning dyes during fiber production.**

Therefore, it would have been obvious for ordinary skill in the art at the time of the invention to obtain polyester fiber structure by polymerization process disclosed by Yamada in view of Yamamoto, wherein heat stabilizing compound is the specific compound (compound of Formula III in claim 1) taught by Kowallik in order prevent **formation of coarse precipitates that can clog spinning dyes during fiber production.**

1.2. Regarding new limitation of Claim1 as" the polyester filaments having a low boiling water shrinkage are ones produced by heat-relaxing partially oriented polyester filaments at an overfeed of 0.5 to 5.0% " note, that this limitation is in format of product-by-process claim. In accordance with the case law applicable

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to the treatment of product-by-process claims (MPEP 2113), the process limitation in claim1 has no probative value absent evidence to the contrary.

Note that case law holds that "even though product-by –process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." See *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

Regarding limitations of Claim 2 - see Yamamoto, lines 50 – 53,column 6 and lines 29-39,column 5.

Regarding limitations of Claims 5, 6, 16-17 and 19-20 – see Yamamoto, lines 60-68,column 8 and column 9, lines 1-50.

Regarding limitations of Claim 7 – see Fujita(abstract and lines 35-52,column7).

Regarding limitation of Claim 8 - Fujita discloses that yarn has substantial sheath-core fashion (see lines 31-33,column 5).

Regarding limitations of Claims 9 and 10 – see Fujita lines 24-35, column 6.

Also note, that as substantially same polyester yarn – obtain from same composition and same processing conditions, yarn will have substantially same properties, including boiling water shrinkage ratio and crimp ratio..

Regarding limitations of Claim 11 – see Fujita Table 1.

Regarding limitations of Claim 12 – see Fujita lines 35-52, column 7.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Omum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-2 and 5 - 6 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-20 of copending Application No. 10/541,574: claims of both Applications significantly overlapping in scope as claimed subject matter drawn to polyester fibers, obtain by the same polymerization process with same catalytic system in both Applications.

This is a provisional obviousness-type double patenting rejection.

3. Claims 1-2 and 5 - 6 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1- 15 of copending Application No. 10/535,419: claims of both Applications significantly overlapping in scope as claimed subject matter drawn to polyester fibers, obtain by the same polymerization process with same catalytic system in both Applications.

This is a provisional obviousness-type double patenting rejection.

Response to Arguments

4. Applicant's arguments filed on December 1,2008 have been fully considered but they are not persuasive.

4.1. Applicant's arguments related to Claims 1-2, 5 – 12, 16-17 and 19-20 rejected under 35 U.S.C. 103(a) as being unpatentable over Fujita et al(US 4,965,919) in view of Yamamoto (US 6,593,447) and in further view of Kowallik et al.(4,254,018) based on alleged deficiency of individual references and on statement that Fujita (or any other references) fails to disclose new limitation of Claim 1 as " the polyester filaments having a low boiling water shrinkage are ones produced by heat-relaxing partially oriented polyester filaments at an overfeed of 0.5 to 5.0%"

Applicant stated that Fujita discloses polyester filaments having a low boiling water shrinkage obtained by heat -relaxing process , wherein overfeeding is kept at range from 20% to 60 % and for this reason , product of disclosed by Fujita is different than product claimed by Applicant.

This argument was found unpersuasive, because as it was explained above(see paragraph 1.2 above) limitation as "produced by heat-relaxing partially oriented polyester filaments at an overfeed of 0.5 to 5.0%" is in format of product-by-process claim and for this reason the process limitation in claim1 has no probative value absent evidence to the contrary. Note, that no evidence to the contrary presented by Applicant.

Rest of Applicant's arguments are not persuasive, because arguments based on alleged deficiency of individual references.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In addition note, that combination of Fujita, Yamamoto and Kowallik teach all elements of subject matter claimed by Applicant in Claims 1-2, 5 – 12, 16-17 and 19-20.

4.2. Obviousness-type Double Patenting rejection is maintained for the Record.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GENNADIY MESH whose telephone number is (571)272-2901. The examiner can normally be reached on 10 a.m - 6 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272 1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Gennadiy Mesh
Examiner
Art Unit 1796

/GM/

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